

DECISION OVERVIEW AND PREFACE

For

The True North Project Expansion

In response to an application by

Fort Knox Gold Mining, Inc.

June 12, 2002

Prepared by the

**ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER**

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I. INTRODUCTION

PURPOSE OF OVERVIEW AND PREFACE

This document presents the Department of Natural Resources (DNR) Decision on an application by Fairbanks Gold Mining Incorporated (FGMI) to amend its plan of operations to allow for development of additional pits within the True North Mine Project area. This document describes the process by which DNR reviewed and evaluated the True North Project expansion application. It describes how public input was considered by the DNR, and what changes were made as a result of public comment and agency concerns.

This decision authorizes the modification of the True North Project Plan of Operations as outlined in the Plan of Operations Approval (Attachment 1). The Plan of Operations for the True North Project consists of the following three documents: 1) True North Project Description; 2) True North Project Reclamation Plan; and 3) True North Project Monitoring Plan.

II. BACKGROUND INFORMATION

LOCATION

The True North Project is located 25 miles northeast of Fairbanks, on the northwest flank of Pedro Dome and approximately 11 miles from the existing Ft. Knox Mine. It covers an area of 2,096 acres within 79 state mining claims (see Figure 1-1 in Attachment 2).

The True North Project is located within the much larger True North Property. The overall True North Property area consists of a mixture of 388 state claims, 65.5 acres of federal patented land owned by Kinross, 401.2 acres of federal patented land under lease, and 4.68 acres of private real estate under lease. The entire True North Property contains approximately 10,000 acres.

Access to the True North Project is by the Steese Highway to the True North/Fort Knox haul road.

WHO IS DEVELOPING THE TRUE NORTH PROJECT

FGMI, a wholly owned subsidiary of Kinross Gold Corporation, owns 100% of the True North Venture. The True North Project operator is FGMI.

EXISTING PROJECT

On December 20, 2000, DNR issued authorizations to FGMI to develop the True North Project by opening two surface mine pits (Hindenburg and East Pits). FGMI's authorized operations include development rock dumps, an ore stockpile, growth medium stockpiles, ore haulage, a shop/office complex, power and water supply, and the necessary general infrastructure including mine and exploration roads. Ore from the True North Project is hauled via an access/haul road (that is the subject of a separate authorization) connecting the True North Project to the existing Ft. Knox facility for processing.

The original projected True North Project mine life was 2.5 to 3 years. The original authorizations recognized that the mine life would change if an economically recoverable deposit was defined through FGMI's ongoing exploration activities in the True North Property area. However, the original project description included all ore that the company then planned to mine, given the known, existing information. The original authorizations were clear that if exploration confirmed additional reserves, DNR would have to approve any changes to the necessary authorizations before new areas could be mined.

The following DNR authorizations and approvals were issued to FGMI for the original True North Project:

- **True North Project Millsite Lease 416509.** The Millsite Lease authorized by AS 38.05.255 allows surface use of state land (issued on December 20, 2000).
- **Right-of-Way for True North Project Road ADL 416471.** This AS 38.05.850 right-of-way, in conjunction with an authorization from the Mental Health Trust Land Office (TLO), provides access between the True North Project and the Fort Knox facility. The overall right-of-way (decision issued on December 20, 2000) is approximately 8 miles long, and is for a term of 10 years.
- **Right-of-Way for GVEA power line to the True North Mine Project ADL 416477.** This AS 38.05.850 right-of-way, in conjunction with an authorization from the TLO, provides 7.2/12.4 kV, 3 phase power to the True North Project from the existing GVEA substation located at Pedro Dome. The overall power line right-of-way is approximately 3 miles (issued on December 20, 2000).
- **Addendum to Fort Knox Millsite Permit ADL 414960 & 414961.** This Addendum allows FGMI to accept and process at the Ft. Knox facility ore originating from lands other than those allowed pursuant to the terms of the original Millsite Permit and to place the resulting tailings in the existing tailings impoundment at Ft. Knox (issued on December 20, 2000).
- **Plan of Operations Approval.** Approval of the True North Plan of Operations in conjunction with other necessary authorizations allows FGMI to begin operations for the True North Project. The Plan of Operations consists of FGMI's Project Description, Reclamation Plan, and Monitoring Plan (issued on December 20, 2000).
- **Approval of Amendments to Plan of Operations.** The Plan of Operations was amended (and approved by DNR on May 25, 2001) to allow FGMI to construct a low-grade ore stockpile. The Plan of Operations was amended (and approved by DNR on December 31, 2001) to allow FGMI the flexibility to operate as many as 15 ore haul trucks (any combination of FGMI and up to 8 contractor trucks) between 7:00 am and 7:00 pm, and up to 9 trucks (any combination of FGMI and up to 8 contractor trucks) from 7:00 pm to 7:00 am.

Other Agency Authorizations given for the original True North Project:

- Department of Environmental Conservation (DEC) **Solid Waste Disposal Permit (00031-BA008) Fort Knox Mine Tailing Disposal.** This permit authorizes off-site ore to be processed at the Ft. Knox facility (issued on December 19, 2000).
- US Army Corps of Engineers (USACE) **Wetlands (404) Permit** for the clearing of approximately 34 acres of wetlands in the Hindenberg Pit area, and the filling of approximately 44 acres of wetlands for the construction of access roads (issued on January 24, 2001).
- DEC **401 Certification** of the USACE Wetlands Permit (issued December 8, 2000).

- Department of Transportation and Public Facilities (DOT/PF) authorization for the underpass at the Steese Highway (issued on December 18, 2000).
- Trust Land Office (TLO) authorization for the access/haul road on Mental Health Trust Land (the TLO is a separate organization that answers to the Mental Health Trust Authority, not to the DNR Commissioner) (issued January 20, 2001).
- TLO authorization for material acquisition for construction of the access/haul road (issued March 5, 2001).

The project authorizations were issued after agency review and significant public input. As a result of comments received during the public process, significant changes were made to the plan of operations to address public concerns and mitigate the potential negative impacts on neighboring land uses. A new route was selected for the haul road to keep the ore haul trucks off the public road adjacent to the residential areas, thereby reducing the noise, dust, and lights impacts to the residential areas. An underpass was built to take the haul road under the Steese Highway rather than at an at-grade crossing. Also, DNR developed stipulations for the project to mitigate the potential negative impacts from the mining operation, especially from the ore hauling operations along the new haul road. These stipulations included a requirement to route the new road so as to minimize the light intrusion from the truck headlights into the residences, and also set noise standards which could not be exceeded by the ore haul trucks.

FGMI began work on the new haul road and the mine pits immediately after the project authorizations were issued and the appeal period had ended. The first ore was hauled to the Fort Knox Mill on March 31, 2001. FGMI initially only used its fleet of nine 60-ton ore haul trucks, but soon asked for authorization to add additional trucks to the daytime hauling operations. DNR gave authorization for an additional 10 trucks during daytime only (7:00 am to 7:00 pm), but continued monitoring to ensure that the noise standards were being adhered to.

DNR issued another amendment to the plan of operations in December 2001 decreasing the number of trucks that could be used in daytime hours from 19 to 15 trucks. The number of trucks allowed at night was kept at 9.

DESCRIPTION OF THE PROPOSED EXPANSION

On December 21, 2001, FGMI submitted an application to DNR for a significant expansion to the True North Project. The proposed expansion would allow FGMI to mine additional reserves identified during its 2001 exploration activities. By mining these additional reserves, FGMI would create three new pits: the Central, Shepard, and Zeppelin pits (see Figure 1-2 in Attachment 2). The Central and Shepard pits would be continuous with the authorized Hindenburg pit, in effect forming one contiguous pit. As a result of this pit expansion, up to an additional 7.4 million tons of ore would be mined from the True North Mine, and would be trucked via the existing haul road to the Fort

Knox Mill for processing. As in the authorized mine plan, no processing of ore would take place at the True North site.

The proposed expansion would lengthen the life of the True North Mine by about 1.5 to 2 years, with mining activity continuing into 2004¹. This extended mine life would not require an extension of the 10-year term on the right-of-way. Because there is more waste rock to remove in the new pits, the mining rate of ore plus waste rock would increase from the current 30,000 tons per day to 52,000 tons per day. FGMI would maintain the current rate of about 10,000 tons per day of ore hauled to the Fort Knox mill. FGMI proposes to utilize the same fleet of nine ore haul trucks. FGMI would continue to use a total of 9 haul trucks (which may include up to 8 contractor trucks) to haul ore during nighttime hours (7 pm to 7 am). FGMI would continue to use additional trucks during daytime hours (up to 15 trucks from 7:00 am to 7:00 pm) to be able to maintain the haulage rate, or to keep up with increased mining efficiencies. Ore hauling would occur 24-hours per day.

As no changes are proposed for the haul road and the rate of hauling, the most significant effect of the proposed expansion would be the increased pit size and increased overall disturbance footprint at the True North Mine site. The addition of the Central, Shepard, and Zeppelin pits would increase the total acreage of the pits from 67 to 352 acres. The waste rock dumps would have to be expanded also. The total increased disturbance resulting from this project would be 586 acres (193 acres of wetlands, and 393 acres of uplands).

As part of its application for this expansion, FGMI submitted revised environmental background information to DNR. This revised information included a supplement to the socioeconomic study and the noise and vibration study done as part of the original authorization process. Also, FGMI submitted additional geochemistry analysis for the new ore and waste rock to show that the geochemical characteristics were not going to change significantly with this expansion.

Also as part of its application for this expansion, FGMI submitted a revised reclamation plan to address the additional disturbance. FGMI would use the same reclamation principles for the additional disturbance as in their existing authorized reclamation plan: contour and revegetate the waste rock dumps, backfill the pits to the extent feasible (but at minimum to backfill so that water will drain out of the pits), and removal of facilities and roads that DNR determines are not necessary for the post-mining land use. Additional ground water monitoring wells would be installed to ensure that the groundwater is protected, and additional lysimeters (a type of monitoring well) would be installed in the waste rock dumps to ensure that no adverse drainage results from these dumps. Finally, FGMI proposes to increase the reclamation bond by \$937,319.00 to a

¹ Although the original True North Project's mine life was to be 2.5 to 3 years (ending in 2004), this was shortened because of changes in the mining plan and lower than anticipated ore grade.

total of \$2,238,419.00 to ensure complete reclamation of the site should FGMI not be able to do so.

NECESSARY AUTHORIZATIONS

The only authorization that would be issued by DNR as a result of this expansion request would be a revision to the ***Plan of Operations Approval***. This is the document that approves the mine's Plan of Operations, which consists of FGMI's Project Description, Reclamation Plan, and Monitoring Plan. DNR's approval is required before the changes may occur.

This proposed expansion would not result in any changes to the other DNR authorizations that were issued during the original permitting process. Also, because FGMI's geochemical analysis of the new ore and waste rock shows the geochemistry will not change, FGMI is authorized to process ore from the True North expansion at the Ft. Knox mill as allowed under section 1.2.2 of the existing ADEC Solid Waste Permit (0031-BA008).

Because the proposed expansion would increase the acreage of disturbed wetlands, the US Army Corps of Engineers (USACE) must revise their original Wetlands (404) permit for the project. FGMI submitted an application to the USACE for this revision when it submitted the expansion request to DNR (DNR and USACE have coordinated the public processes for their respective authorizations). Also, DEC will have to conduct a 401 Certification of the revision to the USACE Wetlands Permit.

III. PROJECT EVALUATION PROCESS

SCOPE OF PROJECT REVIEW AND EVALUATION

In making its determination whether to allow the expansion of the mine pits, DNR evaluated the reasonably foreseeable, significant effects of the True North Project. DNR's decision evaluated the application with respect to material issues and facts (including local government land use plans, zoning designations, and ordinances), available land management information, public and agency comment, and DNR responsibilities under AS 19, AS 38.04, and AS 38.05. This overview discusses the potential effects in general terms that may occur with the expansion of the True North pits, subject to the mitigation measures (measures designed to reduce or eliminate the possible adverse effects) that have been developed as terms and conditions of the project authorizations.

LAND USE PLANNING AND ZONING

The activity proposed by this expansion request is compatible with all local and state land use planning and zoning. An in depth analysis of the policies and management intent of the State's Tanana Basin Area Plan, the Fairbanks North Star Borough's Comprehensive Land Use Plan, and the Fairbanks North Star Borough's Title 16 zoning designations was included in the Decisions Overview and Preface to the original True North Project authorizations (dated December 20, 2000). This proposed expansion does not result in any changes that would change this analysis.

CONSIDERATION OF ADJACENT LAND OWNERSHIP AND USES

In addition to the consideration of adjacent land ownership and uses that were done as part of the Tanana Basin Area Plan, the Fairbanks North Star Borough's comprehensive plan, the Fairbanks North Star Borough's zoning ordinances, adjacent land ownership and uses, existing private and commercial uses, and existing infrastructure were factors DNR used to evaluate the original True North Project and this expansion request. DNR recognizes that there may be some effects on adjacent private lands, including noise and light impacts, but has mitigated these potential negative effects to the extent feasible through the project design and the implementation of numerous mitigation measures attached to the authorizations and decisions.

PUBLIC NOTICE AND PUBLIC PARTICIPATION

As it did during the original True North Project authorization process, DNR has involved the public and solicited public comment on this expansion request as described below.

What Public Notice Does the Law Require? AS 27.19, the legislation that deals with reclamation plans, does not require public notice. However, DNR recognizes the public's interest in reviewing and commenting on the True North Project, including the Project Description, Reclamation Plan, and Monitoring Plan. Therefore, DNR provided public notice of the proposed revisions to these documents.

Public Notice Accomplished for the Original True North Project Authorizations.

Public input was solicited during the process for authorizing the original True North Project. Starting in April of 2000, three public meetings were held on the project, and two advertised public notice periods were conducted. Comments were received and reviewed by DNR and other state agencies. Information on the project was sent 3 times to the project mailing list of about 350 people. Also, numerous articles were published in the local and statewide newspapers during the process. For a more detailed discussion of this, the reader should refer to the December 20, 2000 Decisions Preface and Overview for the original project authorizations.

Public Notice Accomplished for the True North Project Expansion. The public was given the opportunity to review the project documents and provide comments on the proposed mine expansion from January 18, 2002 to February 19, 2002. A display advertisement was placed in the Fairbanks Daily News Miner on January 18, 2002, and 240 notices were mailed to interested persons and organizations. In addition, notice was given on the State of Alaska web site for public notices, and all the project documents were made available on the Division of Mining's web site. Finally, the US Army Corps of Engineers ran a concurrent notice period for their wetlands fill application for this project, and distributed 682 notices to their project mailing list.

A public meeting was held at the Carlson Center in Fairbanks from 7:00 pm to 10:00 pm on January 31, 2002. 132 people signed in (an estimated 200 attended) at the public meeting. A total of 49 comments were submitted orally at the public meeting, and 57 written comments were submitted during the comment period.

In addition to the public comment outreach during both the original authorization process and this expansion review, DNR made project information accessible to ensure a well-informed public and to facilitate meaningful public comment. The public was able to download the original and revised True North Project Description, Reclamation Plan, Monitoring Plan, and Transportation and Maintenance Plan from DNR's website. These documents could also be reviewed in printed form at DNR's Fairbanks office, and at the Departments of Environmental Conservation and Fish and Game. Copies could also be purchased at cost at a commercial printing service. FGMI also provided copies to individuals upon request. DNR also asked the company to accommodate requests for information and directed individuals in some cases to contact FGMI directly for information not available from DNR. Additionally, DNR's files relating to the True North Project are public record and have always been open to the public for review.

IV. SUMMARY AND RESPONSE TO COMMENTS

This Chapter discusses the major issues of concern for the True North Expansion Project and how DNR dealt with them in the decisions. These issues of concern resulted from review of the public comments and agency input.

A total of 106 comments were submitted during the comment period (57 written comments and 49 oral comments). Sixty comments (40 of the written comments and 20 of the oral comments) expressed support for the proposed expansion, citing economic benefits to the state, Fairbanks area, Mental Health Trust. Thirty-six comments (13 of the written comments and 23 oral comments) expressed concerns about the approval of the proposed expansion for a variety of reasons, but mostly due to the impacts from 24-hour hauling of ore.

The 60 comments in support of the proposed expansion included six letters from legislators, resolutions from the Fairbanks North Star Borough Assembly and the Fairbanks Chamber of Commerce, and a letter from the Fairbanks Economic Development Corporation. In general, these comments cited the positive economic benefits to the state and local economies, and to the Mental Health Trust. Other issues raised by these comments included: mining was in the area long before the residences; the permit process is working well; tourism contributes little compared to mining; the zoning and planning for the area clearly allows mining uses.

RESPONSES TO SPECIFIC COMMENTS

The sections below summarize, by topic, the comments we received that expressed concern about specific issues related to the proposed expansion of the True North project. Following each comment summary is DNR's response to those comments.

1. Disturbance. Some people were opposed to allowing FGMI to increase the total disturbance to 600 acres. Some thought that there may be some other beneficial long-term economic interest to this land.

Response. The decision to allow mining in this area was made after a comprehensive land planning process for state land. This planning process, which resulted in the Tanana Basin Area Plan, designated mining as an allowable use for these lands.

In addition, the rights to the minerals in the True North Project area have been conveyed to private ownership through the mining claims and leases. DNR has a legal obligation to allow the owners of these rights to extract the minerals in a manner consistent with state and federal laws.

Also, the mining disturbance is within the True North Millsite Lease boundaries, and that land will be reclaimed after mining use—reclamation will allow recreational use of the land.

2. Economic Benefits. Comments on the economic impacts included:

- Some commenters said that the decision to allow FGMI to expand would not be in the best economic interest of the state. The short term economic gains from the mine are not as important to the state as the long term economic benefits from the small aurora-viewing businesses. The state gets no royalties from the mined gold, and the Powers report shows that the tax revenue from large mines is small.
- A decision to allow the expansion of the mine would harm small local businesses while benefiting only a large foreign corporation.

Response. The decision on whether to amend the Plan of Operations to allow the pit expansion is not determined by the greatest economic benefit to the state. Rather, the greatest economic benefit is a requirement for determining whether to grant, revoke, or suspend a right-of-way across state land. For an analysis of the greatest economic benefit with respect to the True North Haul Road, please see the Decisions Overview and Preface (December 2000); the Right of Way Final Decision (December 2000); the Decision on Requests for Reconsideration (January 2001); and the Decision on Remand (June 2002).

In summary, in that right-of-way process DNR determined that the True North Project provided the greatest economic benefit, and the benefits to the state and Fairbanks community outweigh the potential negative economic impacts to the local aurora viewing businesses. Expansion of the mine may lengthen the term of impacts to neighboring businesses (see discussion below, and the right-of-way documents). But DNR has determined that the extension of impacts will not significantly affect the conclusions of its economic analysis. That is, the economic benefits of the mine and the impact on the Cleary Summit businesses are proportional to the length of time the haul road is in use (Decision on Remand, June 2002).

3. Public Process. Comments on the public process included:

- Some people said that the residents of the Cleary Summit area have not been given an adequate chance to participate in the public process for making this decision.
- The permitting process for this expansion should be postponed until the court case is settled, or at a minimum, a 30-day extension should be granted because some of the information presented by FGMI is unclear or missing.
- The supporting documents for the original project must be updated for this expansion request.

Response. As explained in Section III above, there has been an extensive public involvement process during not only this expansion proposal, but also during the original project authorization process. In total, the original permitting process had two opportunities for public comment and two public meetings. This proposal to expand the mine had an additional public notice period and a public meeting.

The public has been given ample time to review the project documents and to provide DNR with their comments. The information necessary for the public to make their decisions on this project has always been available at the DNR offices and on the web.

The case is no longer before the court. Judge Pengilly has ruled in DNR's favor on one of the two points raised in the litigation. On the second point, the Judge remanded the matter back to DNR to take another look at the economic impacts of the hauling operation on the local businesses. This matter is now before DNR, not the court. DNR is currently complying with the court's order and is issuing its decision on remand at the same time as its decision on the pit expansion. DNR has determined on remand that the right-of-way provides the greatest economic benefit to the state and the development of its resources, taking into full consideration the adverse economic impacts to existing uses of land. As such, there is no reason to postpone its decision on the pit expansion. Additionally, the approval of this expansion request will have no immediate additional impact on the local businesses, as the hauling operations are permitted to continue for at least another year under the existing authorizations.

The relevant supporting documents for this project (Review of Geochemical Issues, Socioeconomic, Land Use, and Visual Impacts Analysis, Noise and Vibration Analysis, Baseline Hydrogeologic Characterization) have all been updated as part of this expansion process, and have all been submitted to DNR, and have been available for public review.

4. Best Interest Finding/EIS. Concerns were raised that a best interest finding or an EIS needs to be done by a third party.

Response. Generally, a best interest finding is required for disposals of state land under AS 38.05.035(e). While the True North right-of-way (to the extent that it is not functionally revocable) and millsite lease are disposals of state land under Alaska case law, these disposals are specifically exempted from the best interest finding requirement by statute. AS 38.05.035(e)(6)(H) and (I). Therefore a best interest finding is not required for this project. Additionally, a best interest finding is nothing more than a discussion of all of the facts and issues, and a determination based on that record, that the disposal is in the best interests of the state. The process undertaken for the original True North project (including the right-of-way), and the pit expansion is the functional equivalent of a best interest finding. DNR has closely examined all of the comments, and all of the facts and issues, in making its determination to amend the plan of operations approval to allow for the pit expansion. In making this determination, DNR has taken all measures that it considers necessary to protect the public interest.

Whether an EIS needs to be completed depends on whether the development of the True North Project would result in a significant change to the environment impacts described in the 1993 Fort Knox Environmental Assessment. This is a decision to be made by the USACE. An EIS is not required under state law.

5. Cumulative Impacts/Phasing. Comments on cumulative impacts included:

- DNR has not taken into account the cumulative impacts of the True North Mine and the possible satellite pits in the area.
- It is highly unusual for a mining company to propose such an expansion after only one year of operation, and it would have been difficult for FGMI to do all the exploration necessary to delineate the expansion in one year. This project was illegally phased.
- The ore haulage numbers show that this expansion request is blatant phasing of the mine project, and that ore haulage on the road will have to increase to meet FGMI's goals.

Response. The potential cumulative impacts of possible satellite pits in the area of the True North Project were considered when DNR initially permitted the True North mine. The potential satellite mines in the area were in the early or mid stages of exploration (with the exception of the Central and Shepard pits which were in the advanced stage of exploration (Environmental Evaluation at 4-344)). While none of the ore bodies of the potential satellite mines had been sufficiently delineated for FGMI to make a determination of whether it was a mineable reserve or an economic project (and therefore reasonably foreseeable), the potential cumulative impacts were nevertheless examined to the extent possible based on hypothetical scenarios. In examining the potential cumulative effects of the satellite pits, DNR determined that estimating site-specific impacts on areas adjacent to the satellite deposits was unrealistic given the limited information regarding whether the satellite deposits (mostly in early to mid stages of exploration) were even potentially viable operations. However, it examined the potential cumulative impacts inside and outside the True North Project Area depending upon the environmental value (e.g., noise, lights, wetlands, air) involved. In addition, as part of the original permitting process, it was recognized that if the Central and Shepard pits (which were in an advanced stage of exploration) were developed that the duration of the True North project as planned in the initially permitted project would be extended. (Environmental Evaluation at 4-344).

That the Central, Shepard and Zeppelin pits are proposed for development in the pit expansion request, just one year after the initial True North permits were issued, is not unusual. During the initial permitting process for the True North Mine, FMGI had stated that these deposits were in an advanced stage of exploration, and if they were developed would extend the duration of the True North Project. During the year since the original permits were issued, FGMI spent several million dollars to further delineate the ore bodies. Based on this further delineation and the development of a plan and

determination of the economic viability of developing these pits, FGMI has requested a modification to its current plan of operations in order to develop these resources. Not all of the exploration was done in the year following the initial True North permitting. However, the additional exploration done on these ore bodies during the year allowed FGMI to make the development of these ore bodies a project.

The project was not “illegally phased”. Alaska case law prohibits the artificial segmentation of a project into discrete phases, resulting in the disregard of cumulative potential environmental impacts of a project. As discussed above, during the initial permitting it was reasonably foreseeable that perhaps one or more of the satellite mines would be developed at some time in the future. However, none of the ore bodies were sufficiently delineated to allow any one of them to be considered part of the project (ie. it was not reasonably foreseeable that a specific orebody would be developed). Nevertheless, to the extent feasible, the potential cumulative impacts that might occur from the development of one or more of the ore bodies was fully considered in the Environmental Evaluation.

6. Third Party Monitoring. Concerns included:

- DNR is biased to FGMI and needs to hire an objective 3rd party consultant to do all the compliance monitoring.
- DNR cannot effectively monitor the mines and address complaints from Anchorage.

Response. DNR has made extensive use of 3rd party consultants during the permitting of this project. SRK Consulting (among the world’s foremost experts on evaluating geochemistry of mine waste products) have reviewed the geochemistry of the True North ore and waste rock and provided recommendations to ensure that long-term water quality is protected. Harris, Miller, Miller, Hansen, an acoustical consulting group from Boston, have advised DNR on noise issues, helped us to develop the noise standards for the haul road, and helped design the noise monitoring process that DNR uses to ensure compliance with the standards. A local Fairbanks company, Nortech, has been hired to do the actual noise monitoring at the residences, and the compliance monitoring for individual haul trucks.

Other monitoring and inspection duties are more appropriately conducted by state agency staff. This is their job. Staff from DNR, DEC, and ADF&G are all professionals, well qualified in their respective fields, and most all of them live and work in the Fairbanks area.

7. Geochemistry Concerns. Comments related to geochemistry included:

- The waste rock piles could generate acid mine drainage over the long term. There is no DEC oversight of the waste rock dumps.

- The geochemistry of the ore deposit is different than originally predicted, as evidenced by increasing antimony, arsenic, and selenium levels in the tailings water, and the need for using lead nitrate in the mill. The sulfide levels in the ore are increasing. There could be negative impacts to water quality, especially for the Chatanika River.
- The SRK Report for the original permit was not finalized until after the permits were issued.
- A number of recommendations in the SRK report were not followed (monitoring wells, toe seep surveys, 1-year humidity cell testing). All their recommendations should be followed.
- There are inadequate details for how potentially acid generating rock should be handled should it occur.
- The state should require additional measures in addition to topsoil replacement to reduce infiltration into the waste rock piles.
- There are no provisions for dealing with pit water after closure.

Response. At the direction of the State, a geochemical analysis of the ore and waste rock generated from this expansion project was conducted by SRK. SRK's conclusion was that there is no significant geochemical difference in this expansion rock and that there continues to be low potential for acid rock drainage and impacts from metals leaching. SRK also concluded that the addition of the new ore to the Fort Knox Mill would not alter the geochemistry of the Tailings Storage Facility (TSF) at the Fort Knox Mine. The State team paid particularly close attention to the geochemistry analysis, as the addition of the new ore must be approved by ADEC under the terms of its solid waste permit. Being part of the State team, ADEC is involved in the oversight of the waste rock at the True North mine. However, since existing data indicates that there is low potential for acid rock drainage and metal leaching of the waste rock generated at True North an ADEC Solid Waste Permit is not required under 18 AAC 60.

In response to some concerns raised by the agencies and the public, the state team worked with SRK to make some changes to FGMI's proposed plan of operations. First, we have added a requirement that any expansion of the pits beyond what is approved by this authorization must be approved by DNR after additional geochemical analysis.

Second, we are requiring that FGMI get approval from DNR for the design and location of each lysimeter in the waste rock dumps. The lysimeters are the monitoring devices within the rock dumps that will allow for the monitoring of any water infiltrating within the rock piles.

Third, we have asked for better control of backfilling waste rock into the pits to better avoid any potential acid rock drainage problems there. As in the original authorizations, FGMI will have to backfill the pits to ensure positive drainage from the pits to avoid the formation of pit lakes. However, DNR will require additional controls on backfilling to ensure that backfill is not placed in portions of pits where there is significant potential for water to infiltrate into the waste rock and then discharge to the surface from the pits.

Fourth, we are requiring that FGMI increase the testing frequency of ore and waste rock in the event that the potential for acid generation increases. This will give us better control over where this rock is placed, and how it will be reclaimed. We are also requiring that FGMI conduct its humidity cell testing for at least one year².

As previously mentioned, the SRK analysis showed that the geochemistry of the ore is not significantly different than that which was already approved for processing at the mill and should not change the geochemistry of the tailings any more than already approved. DNR recognizes that the levels of Arsenic, Selenium, and Antimony did rise in the TSF water (as predicted in the original SRK report), but after the initially high input of True North ore, the levels have been falling. Regardless, this water is contained in the TSF and does not discharge to the environment outside of the Fort Knox minesite. As a no-discharge facility, the groundwater down gradient from the TSF is being monitored, and a series of pumpback wells returns all groundwater affected by the seepage through the TSF dam back to the TSF.

Most of the recommendations in the SRK report were incorporated into the Plan of Operations. The final location of the groundwater monitoring wells were specifically reviewed by SRK before they were authorized. The toe seep surveys will be conducted, as SRK recommends, this spring (and quarterly thereafter). DNR has requested that the toe margin of each dump be cleared or shaped to facilitate the toe seep survey. Finally, DNR is requiring that if FGMI conducts humidity cell testing, the tests should be run for a minimum of one year.

SRK originally recommended that topsoil be placed on the waste rock piles during reclamation. The intent of this recommendation was to reduce infiltration into the waste rock piles by encouraging revegetation of the surface of the dump. At Fort Knox, FGMI has had success in revegetation without using topsoil, so at this time DNR has agreed to let FGMI attempt revegetation of the waste rock piles without topsoil. DNR will monitor the success of FGMI's revegetation efforts and in addition will monitor the infiltration of water into the waste rock piles (via toe seep survey and lysimeters). If DNR determines that revegetation is not occurring in a timely manner or that significant infiltration of water into the rock dump is occurring, then DNR will require FGMI to spread topsoil to ensure revegetation and/or take alternative measures to reduce infiltration.

A concern was raised that the state did not use the final SRK report when making its initial permitting decision in December, 2000. The state agencies were all working with the final SRK report (dated December 2000) in making their decisions on the original authorization.

² Humidity cell testing is a more extensive testing procedure, and better evaluates the long-term potential for the waste rock to generate acid mine drainage or leach metals. Humidity cell testing will only be done if the regularly conducted testing indicates that the potential for acid generation is significant.

FGMI's reclamation plan calls for backfilling the pits at least to the extent that there is positive drainage from all of the pits. Consequently, there will be no water accumulating in the pits. Any water existing in the pits as surface runoff would be unlikely to pick up contaminants from the pit walls or the revegetated pit floor. Nevertheless, any surface discharge will be monitored and must meet water quality standards before reaching another water body. The reclamation bond includes financial assurance for post closure monitoring.

FGMI is required to test the ore and the waste rock it removes from the True North pit, and must notify DNR if it encounters any rock that could potentially generate acid mine drainage. If such rock is encountered, FGMI must dispose of this rock in a manner approved by the state agencies. The state agency staff have the responsibility to ensure that this rock will be disposed of in a way that will not harm the environment.

8. Hydrology. Concerns were raised that the mining at Fort Knox and True North is lowering the water table in the Cleary Summit area, and residential wells are going dry.

Response. Fort Knox and True North mine pits are approximately three miles from the Cleary Summit residences and are separated by geographic divides. Hydrologic divides generally mimic geographic divides. At True North, the mining has not gone (nor is it allowed to go) below the water table. The fluctuating water table at Cleary Summit is likely resulting from the fact that the residences are on elevated ground and their water table has a limited recharge zone. Hilltops are generally unreliable places to drill water wells. This is illustrated by the fact that it has been difficult for FGMI to locate a reliable source of ground water in the vicinity of True North, and the fact that some of the water supply on Cleary Summit is accommodated by truck and tank operations instead of groundwater wells. It is clear from the hydrology that the two mines do not affect the groundwater levels at Cleary Summit.

9. Cultural Resources. Four commenters expressed some concern about the Davidson Ditch and other cultural resources. The concerns included:

- Oppose impacting any portion of the Davidson Ditch.
- Limit the disturbance to the Davidson Ditch to only $\frac{1}{4}$ mile within the pits.
- Make sure that any terrace built along the ditch contour is stable.
- Maps show that another portion of the ditch in Murray Creek will be impacted also.
- FGMI should leave a 150' buffer around the Mother Lode cabin.
- Access to the Dome Creek Siphon has been severed.
- Some of the Ditch below the Louis Creek rock dump has already been impacted.

Response. After reviewing the application submitted by FGMI, it was determined that the maps were in error by not showing a portion of the Davidson Ditch that would be impacted in the Murray Creek drainage. The maps have all been corrected, and

submitted to DNR and ACOE. DNR's State Historic Preservation Office has reviewed the maps and has determined that the total proposed disturbance to the Davidson Ditch is an acceptable use of state land based on the mitigation that will be undertaken by FGMI.

FGMI will be required to implement the following mitigation. First, FGMI will develop a report on the history of the Davidson Ditch and include a description and the current preservation status of significant cultural features along the Ditch. Second, FGMI will produce and publish a brochure on the history of the Davidson Ditch based on the research done for the report. This brochure will include a map of the entire ditch. Third, FGMI will preserve the alignment of the ditch by grading a terrace that will match the original contour of the impacted portions of the ditch as closely as possible. This terrace will preserve the location of the ditch, and will preserve the option for constructing a trail along this alignment should this effort ever be undertaken. The terrace and the adjacent slopes will be revegetated and made stable by FGMI (this is a requirement of the State's reclamation regulations).

The Mother Load Cabin is at least 200 feet outside the boundary of the True North Millsite Lease. All mine related disturbance will occur within the boundaries of the millsite lease.

Access to the Dome Creek Siphon across the millsite lease has been temporarily restricted while the mine is operating to ensure public safety and prevent interference with mine operations. As part of the reclamation of the mine site, the state will work with FGMI to re-establish preexisting access routes through the project area to the extent possible.

State agency staff have visited the mine on numerous occasions and have not seen any disturbance to the Davidson Ditch below the Louis Creek rock dump. The toe of the dump appears to be at least 1000' from the ditch. While the East Pit rock dump is anticipated to come closer to the ditch, FGMI is not allowed to impact the ditch with this dump.

10. Reclamation Plan. Concerns on the Reclamation Plan included:

- The description of the 'resource' and 'reserve' pits is unclear.
- We must be suspect of all mining companies financial assurances, and all bonds must be secure. Also, the Fort Knox bond needs to be reviewed and adjusted to allow for management of blended ore.
- Low grade stockpiles are a concern. It is unclear where they will be, how much ore will be stockpiled, and there are no provisions for monitoring and reclamation of these piles.
- The provisions for when mine plan changes need authorization from DNR are too lenient. The provision that an increase of up to 25% in the disturbance does not need DNR authorization should be removed.

- The reclamation plan is too vague on how much backfilling will be done in the pits.

Response. The authorizations for this expansion would only permit mining the pits to the limit of the 'reserve' pits. The geochemical analysis of the ore was only done for ore from the reserve pits, and before any expansion beyond this limit would be approved, additional geochemical analysis would have to be done, and approved by DNR. However, the disturbance footprint for the rock dumps assumes the full development of the mine to the extent of the larger 'resource' pit. So even though the development of the 'resource' pit is not authorized by this decision, the impacts from the amount of surface disturbance from the full 'resource' pit development have been addressed.

Division staff have analyzed FGMI's proposed bond for reclamation of the True North Mine, and have determined that it adequately protects the state for all reclamation liabilities that will occur during the mine's first year of operations under this authorization. This analysis involved detailed review of all line items of the reclamation cost tables, including verification of wage and labor rates, production rates and rental costs for dozers and other equipment, long term water monitoring costs, and seed and fertilizer costs.

Within one year of the issuance of this authorization, FGMI must adjust the bond amount appropriately to cover additional liabilities expected for the subsequent year. Also, FGMI may be able to subtract reclamation liabilities for reclamation work already completed. DNR has determined that this approach benefits the state as it encourages contemporaneous reclamation.

In addition, ADEC has reviewed the proposal to add the True North ore to the Fort Knox tailings storage facility, and has determined that the existing bond for that facility is adequate. All bonds are reviewed periodically to ensure that they still provide adequate protection to the state.

FGMI's Reclamation Plan does not provide for the reclamation of the low-grade stockpile, so without a revision to the plan, this ore must be hauled to Fort Knox and processed. However, DNR has added a stipulation to ensure that while the material is stockpiled, the pile is monitored for seepage. Also, the cost of reclaiming the stockpile (in the event that the low grade ore is not ultimately processed) will be included in future revisions to the bond.

The Plan of Operations Approval stipulates that any changes to the Plan of Operations must be submitted to DNR for approval. Also, another stipulation has been added to ensure that no additional ore is mined beyond the currently permitted pit boundaries without additional geochemical analysis to ensure that the new ore and waste rock are similar in geochemical character to the currently permitted ore (DNR must approve this analysis). Under the current Plan of Operations, FGMI cannot increase the disturbed acres without first getting DNR's approval to expand the pits beyond what is authorized by this decision.

The reclamation plan provides for backfilling to at least provide for positive drainage from each pit. This will ensure that no surface water will be impounded in the pits, thereby preventing potential impacts to waterfowl if the pit wall rock should generate acid mine drainage (the geochemical analysis has shown this to be unlikely).

11. Access/Haul Road. Concerns were raised that the proposed mine expansion would prolong unacceptable impacts from noise, dust, and lights to the nearby residents from the mine haul road.

Response. DNR has mitigated the noise, dust, and lights impacts to the extent reasonable. The proposed expansion of the mine would extend the life of the mine and the hauling activities and associated impacts. The potential mining impacts include dust, noise, and light impacts on the residents neighboring the True North haul road. These residents live in remote areas surrounded by state land that is designated for resource development. Some impacts from the development of state and Mental Health Trust lands are to be expected. DNR has imposed stipulations on FGMI to ensure that the negative impacts from noise, dust, and lights are adequately mitigated, and DNR will ensure that it continues to do so. As part of the original permitting process, the pit expansion process, and the right-of-way decision on remand, DNR examined whether it was appropriate to impose the additional mitigation measure of a 12-hour haul schedule on FGMI. DNR has determined based on the relatively low level of impacts (see discussions on dust, noise, and lights below) and the impact that such a restriction would have on FGMI and the development of state land, that a 12-hour hauling restriction is not warranted. For more analysis of the 12 hour hauling issue please see DNR's Decision on Remand (2002). The following is a more detailed discussion of how the noise, dust, and light impacts have been addressed.

NOISE

Concerns raised during the public comment period included:

- The noise standards are not strict enough.
- DNR let FGMI set the noise standards.
- DNR should have used the EPA standards that were recommended by DNR's own noise consultant.
- The noise monitoring standards should be applied to all mine traffic on the haul road, not just ore haul trucks.
- Truck certifications were not conducted under normal operating hours.
- The corrective action prescribed by the noise monitoring plan is not adequate.
- To mitigate the impacts on the residents, FGMI should construct noise barriers and cut back hauling hours.

Response. The issue of noise impacts is a relatively technical issue and some background information is required. The unit used to measure the loudness of sound is the A-weighted decibel scale of “dBA.” Most people judge a 10-dBA change in noise levels as a doubling of sound level. The smallest change in noise level that a human ear can perceive is about 3 dBA, and an increase of 5 dBA is usually noticeable. Normal conversation ranges between 44 and 65 dBA when the speakers are 3 to 6 feet apart.

A discussion of the standards and the method by which DNR arrived at the standards is given in the original decision and the response to reconsideration. The standards DNR imposed required that the ore hauling not cause ambient statistical noise levels for any hour within the subdivision to be greater than the levels specified below.

Noise Standards Applied to Ore Hauling

<u>Day (5 AM to 9 PM)</u>		<u>Night (9 PM to 5 AM)</u>	
L ₅₀	55 dBA	L ₅₀	45 dBA
L ₁₀	60 dBA	L ₁₀	50 dBA
L ₁	75 dBA	L ₁	55 dBA

Put into common terms, the nighttime L₅₀ standard means that for any one hour at night, 50% of the time the noise may not be above 45 dBA. The nighttime L₁₀ standard means that for only 10% of the time (or 6 minutes per hour) may the noise be above 50 dBA. The nighttime L₁ standard means that for only 1% of the time (36 seconds) may the noise be above 55 dBA. An explanation of the daytime limits is similar.

DNR established two noise-monitoring stations, one of which is the balcony of the Cleary Summit B&B. Twice during the year on representative days, a consultant monitored the sound levels at the monitoring stations. The first monitoring occurred on August 10, 2001 and the second on January 23, 2002. The consultant determined that FGMI was operating within the standards.

The nighttime winter sound levels are the most important for purposes of the night-aurora-viewing businesses. The winter monitoring results from January 23, 2002 are below, along with a common sense explanation of decibel levels.

Cleary Summit B&B

Night-time Winter Monitoring Results

<u>Permit Standard</u>	<u>Actual Level</u> ³
L ₅₀ 45 dBA	33.0 dBA
L ₁₀ 50 dBA	38.5 dBA
L ₁ 55 dBA	44.6 dBA

Sound Levels and Relative Loudness

Vacuum Cleaner at 10 Ft	70 dBA
Large Store air-conditioning unit, 20 ft	60 dBA
Light Auto Traffic, 100 ft	50 dBA
Bedroom or quiet living room, bird calls	40 dBA
Quiet Library, soft whisper at 15 ft	30 dBA
High Quality Recording Studio	20 dBA

The monitoring showed that at Cleary Summit B&B, half the time the sound levels were less than 33 dBA, just louder than a quiet library or soft whisper at 15 feet. For six minutes an hour the sound levels were greater than 38.5 dBA or just softer than a bedroom, quiet living room or bird calls, and for 36 seconds, sound levels were greater than 44.6 dBA — or between the bedroom level and light auto-traffic at 100 feet.⁴ These sound levels are audible but not loud. In addition, these sound levels were measured outside the residences. The inside levels are predicted to be reduced an additional 10 dBA with windows open and 20 dBA with windows closed.

While no specific monitoring was done at the Mt. Aurora Fairbanks Creek Lodge, the consultant's model predicts the sound levels at the lodge to be barely louder: 0.8 dBA. The model also predicts 6 dBA lower nighttime winter sound levels at Mt. Aurora Skiland because that facility is further from the road and screened by topography. Six dBA quieter would mean that median haul-related noise levels for any nighttime winter hour would be *softer* than a quiet library or whisper at 15 feet. Six dBA quieter would mean that except for the loudest 36 seconds per hour, the sound levels would be quieter than a bedroom or quiet living room or bird calls.

Northern Economics, Inc. reports the noise levels at Mt. Aurora Skiland as follows, "Faint noise from the trucks can sometimes be heard from the parking lot, but not from the day lodge (page 8)." DNR inspectors report the same finding. This layman's description is confirmation of the quantitative monitoring results.

There are other noise sources in the area. The Steese Highway, though typically quiet in the middle of the night, is nearby. There is a dog lot just below the Cleary Summit B&B. DNR inspectors report that during the coldest part of the winter the busses that take the tourists nightly to Skiland are often kept running while parked. These other noise sources were confirmed by monitoring results. The monitoring consultant did not record any sound levels by the trucks that exceeded the permit standards, but they did identify three instances where other sources, such as nearby barking dogs, exceeded the noise standards applied to FGMI. While people who live in the area may be more willing to tolerate these noise sources because they are used to them, they do exist,

³ The "actual level" numbers are the average of three, one-hour monitoring periods on that date.

⁴ Because of the shape of the sound energy curve from the multiple trucks, the maximum sound level from the trucks should not be significantly greater than the L₁ level.

and the monitoring shows that other non-haul-road related noise sources can exceed the sound levels from the haul trucks.

Clearly, if DNR had to manage resource development activities on state lands to be any quieter than this, there would be no resource development on state lands. DNR has determined that given the demonstrated low noise levels from the ore haul trucks, and the millions of dollars in mitigation that FGMI has already spent, additional mitigation (such as noise barriers and restricting hauling hours) is not a reasonable requirement.

FGMI did not set the noise standards for the noise monitoring plan. The process by which these standards were developed was explained in detail in the original decision document for the True North Project. In summary, the noise standards were developed by DNR staff after researching standards in other communities, and after consultation with its noise consultant, HMMH. HMMH did discuss using the EPA noise criteria, but after further discussion it was determined that the EPA criteria were not appropriate for management of State lands as the criteria only predicts public reaction to various noise levels. Again, this is discussed in detail in the original decision documents.

As for the concerns about the noise compliance testing of the haul trucks, these have been explained in the August True North Project Update:

Will the noise standards be applied to all mine-related traffic, including employees and vendors? No, noise standards apply only to the ore haul trucks. DNR has always maintained that most of the existing traffic to Fort Knox would be re-routed to the new road and, with respect to traffic to Fort Knox, the new road would lessen the noise from these sources. By far, the most significant new noise source related to the True North Mine that has potential impact on the local residences is the ore haul trucks. Thus, it is the haul trucks that are regulated in the True North Plan of Operations permit. In addition, it is impractical and unreasonable for DNR to regulate and certify all vehicles used by vendors and employees.

Will the noise levels for truck certification be revised? No, the noise levels for the truck certifications will remain at 82 dBA for both FGMI's 60-ton trucks and the contractor's 30-ton trucks. The main reason that each truck is tested and certified is to give DNR and FGMI a benchmark indication of each truck's performance with respect to meeting the noise standard set in Stipulation #33 of the right-of-way permit for the haul road. The testing will give us a method to monitor each truck to see if maintenance is required to reduce increased noise levels caused by routine wear and tear. The grade of the road at the testing site is not what we are regulating here. What is important to us is that the noise standards at the residences are met as stated in Stipulation #33, and consistent with FGMI's approved Ore Haul Truck Monitoring Plan. The certification noise levels may be re-evaluated after the initial noise monitoring has been completed.

DNR believes that the corrective action plan prescribed by the Noise Monitoring Plan is adequate. Stipulation #33 in the True North Right-of Way permit states that if the corrective action plan does not result in compliance with the noise standards, then FGMI will be prohibited from hauling ore from 10:30 pm to 3:00 am.

DUST

- Concern has been raised that the existing operation already has subjected the residents to unacceptable amounts of dust from the ore hauling operation. Concern has also been expressed that any dust generated by the haul trucks is toxic, that other emissions (truck exhaust, etc) may be a problem, and that the calcium chloride used for dust control could impact the groundwater.

Response. DNR and DEC recognize that the ore trucks generate dust when they travel the haul road. DNR reviews photos submitted by interested parties showing dust rising over the road. However, DNR and DEC believe that there is no significant dust problem at the residences. State personnel have conducted over 40 inspections of the area, and have not reported any dust at the residences. During one inspection, test pits were dug (at the point of the road closest to the residences) in the snow at intervals from the road to look for signs of dust. Dust was clearly observed at a distance of about 50 feet from the road, but the signs of dust diminished as the distance from the road increased. At 200 feet, no dust was observed in the pits. The nearest residence is about 1,000 feet from the road at this point.

The dust that is generated is not generated by True North ore. The road is surfaced with granite from the Fort Knox Mine. The granite does not contain toxic substances, and is a superior road surfacing material. Any spilled True North ore on the haul road is in insignificant quantities, and would be graded off to the side of the road during regular maintenance operations, where it would not generate dust.

Even assuming that some of the dust generated is True North ore, this ore is itself not toxic and would not produce toxic dust. The True North ore has been extensively analyzed for its geochemistry. Regular monitoring of the ore geochemistry is being conducted at both the True North Mine and at the Fort Knox Mill where it is processed. Technical experts at ADEC, DNR, and ADFG have reviewed the original geochemical data, and continue to review the ongoing monitoring results to ensure that this ore would not produce toxic dust.

Concern was expressed in the comments that DNR was not making the geochemical analyses available for public review. These analyses are available for public review at DNR offices. In DNR's periodic updates on the web, we have encouraged the public to contact us to review any of the project documents and files.

DNR is continuing to monitor for dust problems during its inspections. DNR will also continue to work with FGMI to make sure that everything feasible is being done to

reduce fugitive dust, as well as other emissions from the haul trucks. Sections of the road have been high-floated. FGMI waters the road and applies dust suppressants in the summer, and grades snow onto the road in the winter. FGMI will be submitting a comprehensive dust control plan no later than June 14, 2002, to DEC. Further, if DNR determines that there is a dust problem at the residences, then it will direct FGMI to take additional measures to mitigate the negative impacts of dust.

The issue of calcium chloride impacts on water quality was addressed in the January 2002 True North Project Update:

“One inquiry expressed concerns that the groundwater in the vicinity of the residences could be impacted by spilled ore or the calcium chloride used for dust control, and that DNR should provide test results from monitoring the local groundwater. As explained above, the spilled ore is not a potential contaminant of the groundwater because it is not toxic and the quantities are insignificant. Groundwater generally follows the surface topography, so we can estimate that the groundwater is approximately 200 feet below the surface of the haul road. Calcium chloride does not have a potential for contamination of the groundwater in the vicinity.”

LIGHTS

- Concerns have been raised that the proposed expansion would only prolong the unacceptable impacts from truck headlights shining into the windows of residences and disrupting aurora viewing, and that these impacts already constitute a violation of the right of way permit that prohibits direct light from shining on the residences.

Response. DNR recognizes that the pit expansion would result in the True North right-of-way being used by FGMI until 2004, and therefore prolong the impacts from the headlights. However, DNR believes that the light impacts are not at a level that would warrant restriction or curtailment of hauling operations.

Rather than using the existing roads, in order to minimize the impacts to the neighboring residents, FGMI constructed, at a cost of over \$8 million, a new haul road well away from the residences (1,315' from the Cleary Summit Bed and Breakfast). The road was aligned during construction so that the truck lights would not shine directly at the residences. Most of the length of this road is not within the viewshed of the residences (approximately two miles of the 10-mile haul road are visible from the residences located on the south side of Cleary Summit). In most of the sections of the road that are within the viewshed of the residences, the road is aligned so that the trucks point away from the residences. Large sections of the road are behind a hill and other terrain and are not visible at all. For one 1/4 mile segment, the road alignment is such that the trucks are pointing in the general direction of the residences. This is the section of the road from where most of the complaints arise.

Even on this very short segment of road that is generally aligned in the direction of the residences, the headlight beams do not shine directly at any residence. The road at this location is about a mile away from the nearest residence. The grade on this section of the road is generally either level or gradually downhill as the trucks are approaching the residences. The truck lights while shining generally in the direction of the residences, are a few hundred feet below the level of the businesses, and shine onto the road in front of the trucks, not up at the residences. In addition, trucks dim their lights in this section of road to minimize any indirect lighting impact on the residences. FGMI has installed signs reminding the truck drivers to avoid using high-beams while on the critical 1/4 mile of haul road. However, despite all these measures, in a dark room with no curtains, the indirect lighting from truck headlights does cast shadows on the inside walls of the Johnson residence. It is not a violation of DNR's stipulations for indirect light to have some impact on houses overlooking the right-of-way. Indirect light is an inevitable impact as State land continues to be developed.

Nighttime hauling is also limited to 9 trucks. DNR will continue to hold FGMI to this limit during nighttime operations. DNR will also continue to work with FGMI to reduce the light impacts if possible.

DNR thinks that it has taken all reasonable measures to minimize the negative light impacts on the residences. The views from many of the residences take in a viewshed of tens of thousands of acres of state land. It would be irresponsible for DNR to manage this vast acreage so that no lights would be visible to any of these residences.

12. Transportation Plan. The comments included:

- The proposed trucking plan is vague. It is unclear what is meant by "increased mine efficiencies." All noise modeling was based on a total of nine trucks, and that is all that should be allowed to operate on the road.
- The rate of trucking on the Twin Creeks road will have to increase dramatically in order for FGMI to meet its stated goal of mining the Hindenberg, East, Sheppard, Central and Zeppelin Pits by the end of 2004. The increased trucking will increase the light, dust, and noise impacts.
- The road is unsafe because of the huge trucks that are spilling ore and have had too many accidents. The trucks are operating illegally with unsafe loads and without tailgates.
- Some comments claimed that the trucks were not highway legal, and are commonly overloaded.
- One commenter said that the grade of the new haul road is up to 8% in places, not the maximum of 6% that was promised.

Response. DNR has granted FGMI authorization to increase (from the originally permitted 9 trucks) the number of trucks running on the haul road during the daytime as long as all noise standards continue to be met. DNR may continue to allow more than 9

trucks to operate on the road during the daytime, as long as the noise standards continue to be complied with. However, the total number of ore haul trucks operating at night will not exceed 9.

FGMI anticipates that it will be hauling ore at the average rate of approximately 10,000 tons per day or 3.7 million tons per year. FGMI may haul more tons per day based on increased haulage efficiencies. However, DNR is not amending the currently authorized number of trucks--9 trucks from 7 p.m. to 7 a.m., and 15 trucks from 7 a.m. to 7 p.m (December 2001 Approval of Amendment to Plan of Operations).

By keeping the number of trucks constant, the daily light, dust and noise impacts will not be increased. Noise monitoring has indicated that even with the running of additional trucks (from FGMI's originally permitted 9 trucks) the noise standards required by Stipulation 33 have been met. Further, the additional trucks are only allowed from 7 a.m. to 7 p.m. Therefore the impacts from the 6 additional trucks are limited to daytime impacts and will not appreciably affect the aurora viewing tourism operations. The currently authorized number of trucks (9 from 7 p.m. to 7 a.m., and 15 from 7 a.m. to 7 p.m.) is actually a decrease from the 19 daytime trucks that were authorized in June 2001.

DNR has conducted over 40 inspections last year. Staff have paid particularly close attention to the condition of the road, and the haul truck operations. DNR staff has not noted any unsafe conditions on the road, or unsafe haul truck operations. Also, the majority of the haul road is a private right-of-way with no general public traffic, so there is little potential threat to public safety on these sections. All sections of the haul road are appropriately signed to warn travelers of the ore hauling operations and to prevent travel onto the private right-of-way.

DNR's Right-of-Way final decision stipulates that the road design must meet DOT standards to ensure that it is appropriate for public use. This stipulation allows for road grades to a maximum of 6% to 8%. DNR has consulted with DOT to ensure that all hauling operations are conducted in a safe manner. In all DNR's inspections, no unsafe hauling practices, such as overloaded trucks, have been observed.

In order to provide an additional measure of public safety, DNR will require FGMI to add additional signage at each Pedro Dome and Twin Creek Road intersection and the Twin Creek/Fish Creek Road intersection informing the public that these intersections will be closed to public use while FGMI ore haul trucks and service vehicles are present.

13. Other Comments. Other comments included:

- The Cleary Summit residential area existed before the Fairbanks North Star Borough Comprehensive Plan and the Tanana Basin Area Plan. DNR created the residential use at Cleary Summit.
- The RSA system by which the mine operators reimburse state agencies for permitting work on their permit applications is a conflict of interest.

Response. The original True North Project Decisions Overview and Preface (December 20, 2000) describes in detail the land ownership, classification and zoning of the Cleary Summit area. Some of the residences at Cleary Summit may have predated state ownership of the surrounding lands. However, both State and Municipal lands in this area underwent comprehensive planning processes involving extensive public involvement to determine the most appropriate uses of those lands.

Title to some of the residences at Cleary Summit did come from the State and title to the properties is subject to a mineral reservation by the state in accordance with state law. Further, the state disposal of land to private parties such as the residents at Cleary Summit does not provide any exclusive right or interest in the area of the disposal. Disposal of State land does not imply or require that future state disposals in the area will be limited in type or any other manner.

The Reimbursable Services Agreement (RSA) system provides a mechanism by which an applicant can be assured of timely processing of permits by providing the money to cover the costs of the permit processing. Budget cuts to state agencies have resulted in personnel reductions, and obtaining funding through RSAs is the only way that agencies can keep staff available for permitting the larger projects. The state is paid whether or not an authorization is issued. The RSAs always include a memorandum of agreement that explicitly states that the funding agreement in no way guarantees that a permit will be issued. State agency staff are bound by state law to process all permits using the same statutory and regulatory processes, and provide the same unbiased evaluation of the projects impacts, regardless of where the funding comes from.

V. STATE'S DECISIONS

In making this decision to approve the changes to the True North Plan of Operations, the Department of Natural Resources has reviewed all the information submitted by the applicant, public comments collected during the public notice period, and additional information collected during the course of this review.

The primary effect of this mine expansion will be to increase the amount of disturbance within the True North Project area. The Department has already determined that mining is an acceptable use of this land, and has conveyed the mineral property rights into private ownership. On December 20, 2000, the Department issued a millsite lease to the applicant in support of present and future mining development. The entire disturbance footprint resulting from this expansion is within the boundaries of the applicant's millsite lease.

The mining activities resulting from this expansion are consistent with the state's land management policies for this area as set forth in the Tanana Basin Area Plan. The Department has determined that the applicant's Reclamation Plan as modified is adequate to ensure that the land is reclaimed to meet the land use goals of the Tanana Basin Area Plan.

State agency staff have carefully evaluated the potential for acid mine drainage and impacts from metals leaching from the waste rock piles and the mine pits at the True North site. That potential was determined to be low. Additional protections, such as monitoring and infiltration control, will add additional factors of safety to protect the state. Also, the geochemistry of the True North ore was evaluated to make sure that there would be no adverse geochemical effects on the Fort Knox Tailings Storage Facility, and that the tailings generated by this new ore would be in compliance with the terms of DEC's Solid Waste Disposal Permit for the Tailings Storage Facility, and the terms of the amended Fort Knox Millsite Lease.

Cultural resource protection was another issue that was evaluated by the state team. Although portions of the historic Davidson Ditch will be impacted by the True North Project expansion, the applicant has proposed mitigation for these impacts that is acceptable to the State Historic Preservation Office. The Department has determined that the positive benefits from the True North Project, coupled with the mitigation measures to be undertaken by the applicant, outweigh any adverse impacts to the ditch.

The Department also evaluated the additional impacts on the nearby residential areas and the local businesses in making its decision. DNR has determined that the mine expansion authorized by this decision will not have any significant changes to the day-to-day ore hauling activities. The only significant change resulting from this authorization would be the prolonged mine life, and the resulting prolonged hauling activities on the haul road by 1 to 1.5 years. The Department has determined that the impacts to the residences and the local businesses were adequately addressed in the original project authorization and the resulting mitigation measures.

On the basis of the facts and issues presented to DNR in the public's comment period, the DNR administrative record, the applicable statutes and regulations, and the documents reviewed during the preparation of this decision, the department has determined that the proposed activities are necessary for the extraction and processing of ore. The Department of Natural Resources hereby authorizes the applicant's proposed changes to the True North Plan of Operations in accordance with the stipulations stated in the May 2002 Plan of Operations Approval (Attachment 1).

_____/s/_____
Robert Loeffler, Director
Division of Mining, Land & Water

June 12, 2002

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be by **July 2, 2002** and may be mailed or delivered to Pat Pourchot, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to dnr_appeals@dnr.state.ak.us. This decision takes effect immediately. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31st day after issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

ATTACHMENT 1
Plan of Operations Approval

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING, LAND AND WATER

TONY KNOWLES, GOVERNOR

550 West 7th Avenue, Suite 900D
Anchorage, AK 99501-3577
PHONE: (907) 269-8629
FAX: (907) 269-8930

June 12, 2002

Fairbanks Gold Mining, Inc.
P.O. Box 73726
Fairbanks, AK 99707-3726
Attn: William Jeffress

Re: Approved Amendments to Plan of Operations for the True North Project

Dear Mr. Jeffress:

The Alaska Department of Natural Resources, Division of Mining and Water Management (DNR), in accordance with and subject to the requirements and general stipulations of Alaska Statutes 27.19 (Reclamation) and 38.05 (Alaska Land Act) and the Alaska Administrative Code, Title 11 Chapters 86 (Sections 145, 150, and 800 regarding Plan of Operations), 96 (Miscellaneous Land Use) and 97 (Mining Reclamation), approves the Amendments to Plan of Operations F017522 for the True North Project submitted by:

Fairbanks Gold Mining, Inc.
P.O. Box 73726
Fairbanks, AK 99707-3726

Throughout this document, unless otherwise specifically indicated, reference to Fairbanks Gold Mining, Inc. (FGMI) is considered a reference to both Fairbanks Gold Mining, Inc. and LaTeko Resources, Inc., as tenants in common under the True North Joint Venture Agreement.

Effective dates of this plan approval are June 12, 2002 through June 12, 2007, unless sooner revoked for cause; however, FGMI's obligations under the terms and conditions of this plan approval shall continue, unless sooner terminated in accordance with the provisions of this plan approval, until completion of all requirements under and pursuant to the Plan of Operations.

Throughout this document, the Plan of Operations is considered to consist of the True North Project Description - September 2000 (as Amended December 2001), True North Monitoring Plan - December 2001 and the True North Reclamation Plan - December 2001. Reference to any of these plans throughout this document is considered to be a reference to the Plan of Operations. Likewise any and all stipulations associated with the approval of any of these individual plans is considered to be a requirement of the Plan of Operations Approval.

This Plan of Operations Approval does not take effect until FGMI submits a bond in a form and substance approved by DNR. The Bond shall not be released until all affected areas have been reclaimed and are approved by the Authorized Officer and all other terms of this Plan of Operations are met. Modifications to this Plan of Operations may, at DNR's discretion, require bond review and update.

DNR has reviewed the proposed bond and has determined that the bond is adequate at least for the amount of reclamation liability expected for the first year of operations. The proposed bond is approved with the following conditions:

- 1) The "Contingency" indirect cost should be raised to 15%, and
- 2) The bond must be reviewed and any appropriate adjustments made within one year of this Plan of Operations Approval.

This plan approval is for activities upon State-managed lands listed in Appendix B of the True North Reclamation Plan.

This plan approval does not constitute certification of any property right or land status claimed by the applicant.

The Plan of Operations was found to be complete and is approved with the following conditions:

PLAN-SPECIFIC STIPULATIONS

- 1. Terms of this Plan Approval.** The Terms and Conditions contained within the True North Project Description - September 2000 (as Amended December 2001), True North Monitoring Plan - December 2001 and the True North Reclamation Plan – December 2001, and the True North Mine Project Millsite Lease (ADL 416509) are hereby included as stipulations of this Plan Approval. If there is a difference between the Plan of Operations as submitted and the terms contained within this Plan Approval, the terms contained within this Plan Approval take precedence.
- 2. The Authorized Officer** for DNR is Stan Foo, Chief of the Mining Section, Division of Mining, Land and Water or his designee. The Authorized Officer may be contacted at 550 West 7th Avenue, suite 900B, Anchorage, Alaska 99501, telephone (907) 269-8621, and fax (907) 269-8930 or at stanf@dnr.state.ak.us. FGMI will be notified of changes to the authorized officer as needed.

3. Alaska Historic Preservation Act. The Alaska Historic Preservation Act (AS 41.35.200) prohibits the appropriation, excavation, removal, injury, or destruction of any State-owned historic, prehistoric (paleontological) or archaeological site without a permit from the Commissioner. Activities described in the Plan are subject to the stipulations in the December 20, 2000 Plan of Operations Approval, as well as the following stipulation:

- a. This Plan of Operations Approval is contingent upon the execution of the Memorandum Of Agreement Between The Army Corps Of Engineers And The Alaska State Historic Preservation Office Regarding Adverse Effects To The Davidson Ditch (Liv-73, Cir-10, Fai-344) Near Chatanika, Alaska By Fairbanks Gold Mining, Inc. All conditions of this Memorandum of Agreement will be complied with.

4. Salvageable Timber. All timber on the Millsite Area that will be cleared to allow Millsite Operations shall be salvaged in accordance with Division of Forestry requirements.

5. Monitoring Plan.

- a. Monitoring results obtained during a reporting period shall be summarized and reported to the Authorized Officer quarterly, on or before the 15th day of the month following the quarter, in an electronic format acceptable to DNR. Electronic copies should also be sent to ADNR (Jim Vohden at jimv@dnr.state.ak.us), ADEC (Pete McGee at pmcgee@envircon.state.ak.us), and the Alaska Department of Fish & Game (ADF&G) (Phyllis Weber-Scannell at phyllis_weber_scannell@fishgame.state.ak.us). Amendments to this distribution list will be provided to FGMI as needed.
- b. Quarterly monitoring reports should include at a minimum all compliance and static water level monitoring listed in the True North Monitoring Plan – December 2000.
- c. FGMI shall submit annually to ADNR an “as built” map illustrating the current development of all facilities within the millsite lease boundary. The plan maps shall show cleared and grubbed areas; growth medium stockpiles; roads; waste rock dump development; pit bench development; current pit backfill and expected pit backfill for the next year. Maps shall be 1”-500’ or other appropriate scale necessary to review the development of individual facilities. The maps shall be submitted along with the annual report as required by the millsite lease.

- d. The Spruce Creek Dump should have a total of three lysimeters installed. For the North Dump, one lysimeter is adequate. Two lysimeters shall be installed in all other dumps. All lysimeter designs and locations must be approved by DNR before installation.
- e. Humidity Cell testing done on samples where the ratio of net neutralization potential to net acid generation is less than 3:1 shall be run for a minimum of 52 weeks.
- f. Acid-base accounting (ABA) to determine the neutralization potential (NP) to sulfide acid potential (SAP) ratio (NP/SAP), and Net Acid Generation (NAG) test reliably correlated to NP/SAP (for correlation with ABA tests), will be performed on all quarterly composite blast hole chip ore and waste characterization samples. If any quarterly ABA and NAG shows an NP/SAP of less than 3 then ABAs and NAGs will be performed on all subsequent monthly composite blast hole chip samples (ore and waste). If any monthly ABA and NAG shows an NP/SAP less than 2.5 then NAGs will be performed on subsequent weekly composite blast hole chip samples (ore and waste), and ABAs will continue to be performed monthly. If any monthly composite blast hole chip sample ABA and NAG shows an NP/SAP of less than 2, then the NAG procedure will be performed on the individual blast pattern composite blast hole chip samples (ore and waste) that composed the weekly composite, and ABAs will continue to be performed monthly.
- g. If the testing frequency increases to more than quarterly, then FGMI will notify DNR of the increased testing, and will make all ABA or NAG testing results available to DNR.
- h. If NP/SAP from a single blast pattern sample is less than 2, then kinetic testing (52-week Humidity Cell Testing) will be performed on the sample.
- i. Post Closure Monitoring of Surface and Ground Water, as outlined in Table 3-2 in the Monitoring Plan, will include monitoring of lysimeters, toe seep surveys, and any pit water that may be present. The lysimeter monitoring will include a volume measurement.

6. True North Project Description.

- a. Mining Below Water Table. FGMI shall monitor water table elevations and adjust mine plans to ensure that mining does not intersect the water table and an adequate thickness of in situ material remains above the water table to avoid adverse impacts to both surface and ground water quality.
- b. Waste rock shall not be removed from the millsite boundary.
- c. This Plan Approval authorizes the expansion of the mine pits only to the 'reserve pit' boundary, that is the boundaries of the Central, East, Zeppelin, Shepard, and Hindenburg pits shown in

Figure 3-1 in the Reclamation Plan (December 2001). Before any mining can proceed beyond this boundary to the 'resource' pit boundary, additional analysis must be undertaken to determine if there are significant geochemical differences in this waste rock and ore. ADNR and ADEC must approve any changes to the Plan of Operations prior to mining outside of the 'reserve pit' boundaries.

7. True North Project Reclamation Plan.

- a. Unless otherwise approved by DNR, all reclamation shall be completed within 2.5 to 5 years after the cessation of the transport of ore from the True North Mine.
- b. *Exploration Drill Hole Closure.* Unless retained for monitoring purposes, all drill holes will be abandoned in compliance with ADEC requirements.
- c. Stipulations regarding specific sections of True North Project Reclamation Plan – September 2000:

4.1.7.3.1. Growth Medium. Growth medium replacement depths on waste rock dumps, pits and roads will be determined based upon water quality monitoring data and final facility closure plans developed to achieve closure water quality objectives. Revegetation success may also affect growth medium replacement requirements.

- d. If waste rock is backfilled into any one of the pits, the surface of the backfilled slopes should be free-draining, the slopes should be treated to minimize infiltration, and the pit floor should be of a configuration such that any precipitation that does infiltrate into the backfilled waste rock will not drain out of the pit to surface waters.
- e. FGMI will notify DNR of any areas where topsoil will not be salvaged under the waste rock dumps prior to constructing those portions of the dumps.
- f. Reducing infiltration will be a primary objective of reclaiming waste rock dumps, and when ripping for soil scarification. If it is determined that infiltration may be adversely affecting water quality, DNR may require FGMI to add additional growth medium or take additional measures to reduce infiltration. When ripping for soil scarification, care must be taken to balance the needs of revegetation with keeping an intact surface to reduce infiltration potential.
- g. Low-Grade Stockpiles. If the low-grade stockpiled ore is not hauled away and processed, FGMI must revise the reclamation plan to address reclaiming this ore at the True North site. The stockpile shall be reclaimed and monitored to the same standards as the approved waste rock dumps, and to ensure protection of surface and ground water.

8. Permanent Closure. For purposes of determining monitoring requirements and bond release, closure of a facility is achieved when the following requirements are met:

- a. Monitoring well, lysimeter and toe seep survey results indicate that infiltration through the facilities is not expected to degrade ground water such that it exceeds water quality standards or documented natural background conditions;
- b. Any runoff from mine-disturbed areas and any related ponds must meet water quality standards or documented natural background conditions;
- c. Any backfilling, regrading and capping of facilities needed to achieve closure water quality objectives has been completed; and,
- d. All mine-disturbed areas, except pit walls and other areas approved by DNR, shall exhibit 70% vegetation cover criteria three years after the last application of growth medium, fertilizer or seed.

9. Public Access. FGMI may be required to re-establish access to the remaining segments of the RS-2477. FGMI shall develop site access roads in such a manner that controlled public access can be maintained to the RS-2477 where it extends beyond the project haul roads.

Standard Stipulations

10. Fuel and Hazardous Substances. Secondary containment shall be provided for fuel or hazardous substances.

- a. **Container marking.** All independent fuel and hazardous substance containers shall be marked with the contents using paint or a permanent label.
- b. **Fuel or hazardous substance transfers.** Secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers. Appropriate spill response equipment must be on hand during any transfer or handling of fuel or hazardous substances to respond to a spill of up to five gallons. Transfer operations shall be attended by trained personnel at all times.

- c. **Storing containers within 100 feet of water bodies.** Containers with a total capacity larger than 55 gallons, which contain fuel or hazardous substances, shall not be stored within 100 feet of a water body.
- d. **Exceptions.** The Authorized Officer may, under certain circumstances, grant exceptions to this stipulation on a case-by-case basis. Requests for exceptions must be made to the Authorized Officer.

Definitions.

"Containers" means any item which is used to hold fuel or hazardous substances. This includes tanks, drums, double-walled tanks, portable testing facilities, fuel tanks on small equipment such as light plants and generators, flow test holding tanks, slop oil tanks, bladders, and bags. Manifolded tanks or any tanks in a series must be considered as single independent containers. Vehicles, including mobile seismic tanks, are not intended to be included under this definition.

"Hazardous substances" are defined as (a) an element or compound which, when it enters the atmosphere, water, or land, presents an imminent and substantial danger to the public health or welfare, including fish, animals, or vegetation; (b) oil; or (c) a substance defined as a hazardous substance under 42 U.S.C. 9601(14).

"Secondary containment" means an impermeable diked area or portable impermeable containment structure capable of containing 110 percent of the volume of the largest independent container. Double-walled tanks do not qualify as secondary containment unless an exception is granted for a particular tank.

"Surface liner" means any safe, non-permeable container (e.g., drips pans, fold-a-tanks, etc.) designed to catch and hold fluids for the purpose of preventing spills. Surface liners must be of adequate size and the volume of the liner must be based on worst-case spill risk.

11. Notification of Discharge of Fuel or Hazardous Substances. The permittee shall notify DNR of any unauthorized discharges of oil to water, any discharge of hazardous substances (other than oil), any discharge of oil solely to land and outside an impermeable revetment, all fires, and all explosions (other than normal blasting operations). This notification will be included in the quarterly report described in Stipulation 5 A.

12. Inspection and Entry. FGMI shall permit authorized representatives of DNR to enter into and upon the area and facilities covered under this plan approval at all reasonable times without notice for the purpose of inspecting the area and activities covered under this plan

approval. Said inspections shall be subject to such safety and security procedures as FGMI may from time to time adopt, but such procedures may not deny DNR access.

At any time upon DNR's written request, FGMI shall promptly make any and all records, documents, or other information required to be kept or maintained by law, regulation, ordinance or this Plan of Operations Approval available to DNR for inspection and copying as reasonably required by DNR to determine FGMI compliance with local, state and federal laws applicable to the operations authorized under this plan approval.

- 13. Violations.** This authorization is revocable immediately upon violation of any of its terms, conditions, stipulations, nonpayment of fees, or upon failure to comply with any other applicable laws, statutes and regulations (federal and State).
- 14. Assignment.** This plan approval may be transferred or assigned with prior written approval from DNR. DNR will only disapprove a transfer for good cause and will evaluate whether the proposed assignee (1) is qualified to hold interests in state mining rights under AS 38.05.190 and to acquire all other permits and authorizations necessary to conduct operations under the plan; (2) is on notice of default or subject to an enforcement action by any state agency on any lease, reclamation bond, or other permit within the state; 3) has committed in writing to be bound by this plan approval to the same extent as FGMI; and, 4) provided to DNR all proofs of insurance, bonds, or undertakings required by this plan approval, and any other information or assurances required by DNR to establish that the assignee will be as responsible for compliance as the assignor. Transfer of this plan approval may, at DNR's discretion, require bond review and update.
- 15. Other Authorizations.** The issuance of this authorization does not alleviate the necessity of the Permittee to obtain authorizations required by other agencies for this activity.
- 16. Valid Existing Rights.** This authorization is subject to all valid existing rights in and to the land under this authorization. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, to the existence, number, or nature of such valid existing rights.
- 17. Reservation of Rights.** DNR reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land under this authorization.

- 18. Change of Address.** Any change of address must be submitted in writing to the Authorized Officer.
- 19. Modifications.** Any request for modification of the plan of operations and any other affected permits or authorizations must be made by written application to DNR. Amendments to the Plan of Operations may, at the discretion of DNR, require bond review and update.
- 20. Statutes and Regulations.** This plan approval is subject to all applicable state and federal statutes, including state, federal, and any local statutes and ordinances in effect on the effective date of this plan approval, new statutes, regulations, and ordinances enacted or promulgated after said effective date, and changes to existing statutes and regulations made after the effective date, to the extent constitutionally permissible.
- 21. Severability.** If any clause or provision herein contained shall be adjudicated to be invalid, it shall not affect the validity or effect of any other clause or provision of this plan approval, nor constitute any cause of action in favor of either FGMI or DNR as against the other.

Commencement of permitted activities represents FGMI's acceptance of these special stipulations.

Approved: _____/s/_____
Bob Loeffler, Director
Department of Natural Resources

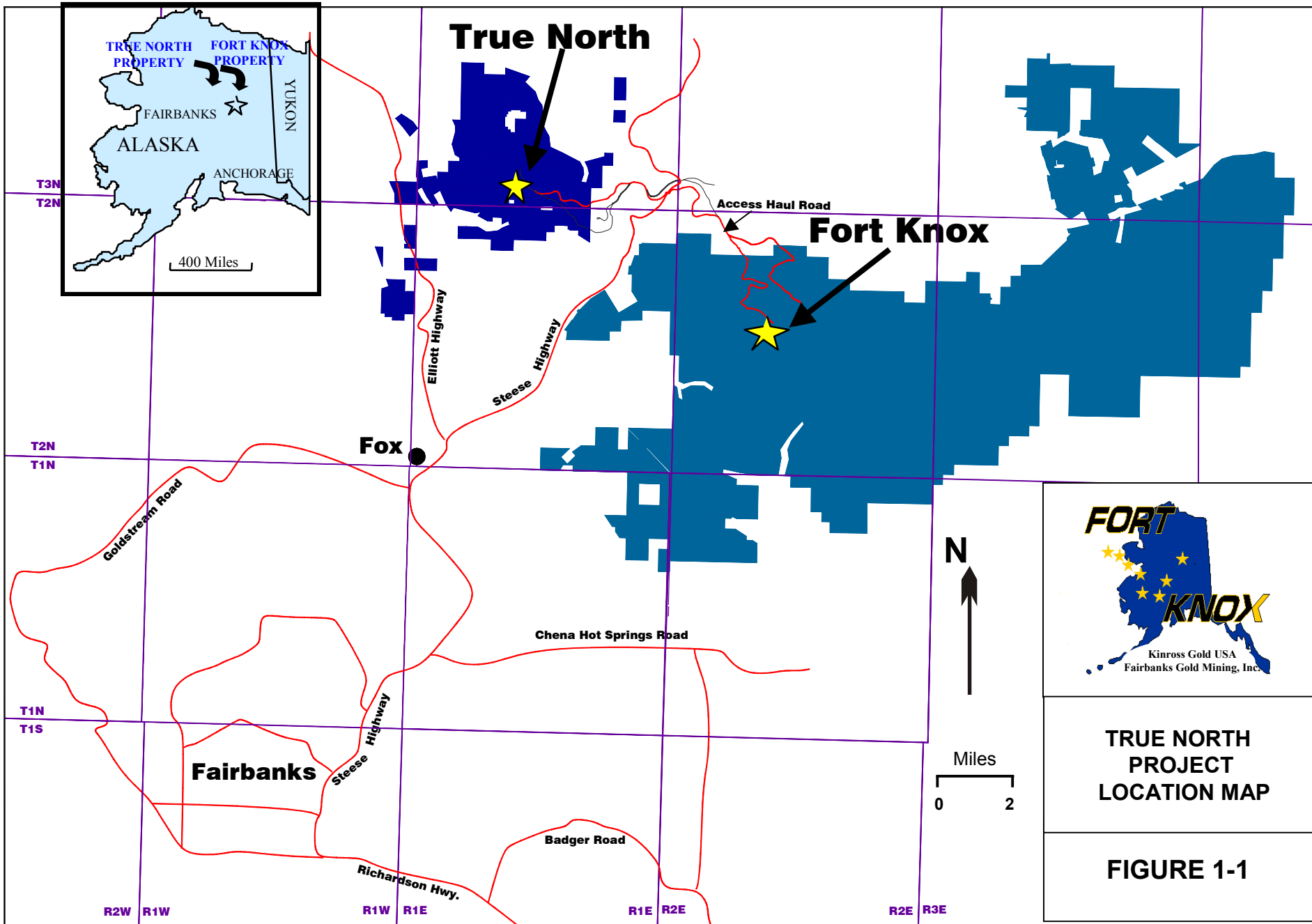
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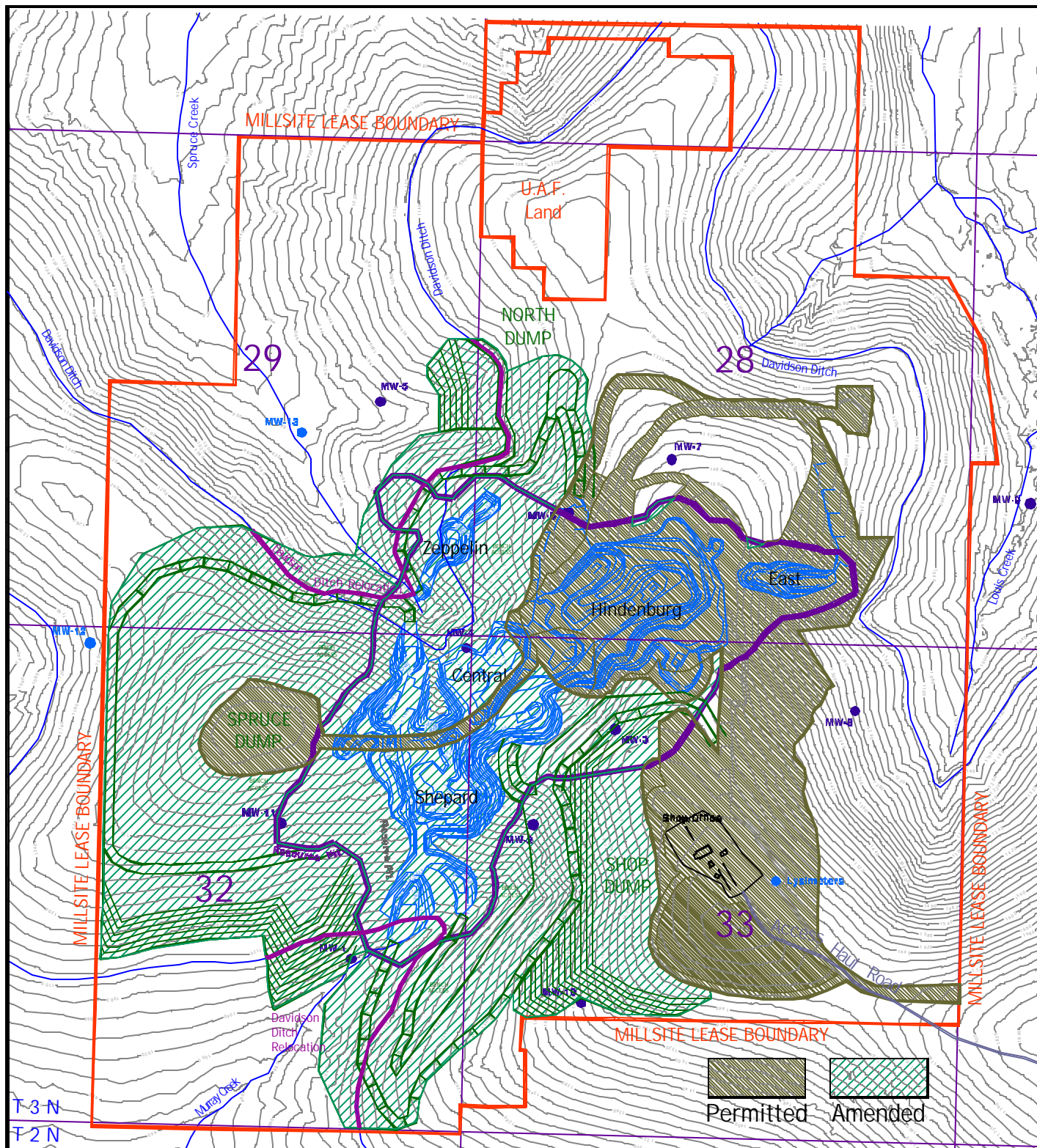
ATTACHMENT 2

Project Maps

Figure 1-1: True North Project Location Map

Figure 1-2: True North Project, Permitted and Amended Footprint





LEGEND:

Contour Line Dump/Road Contour Dump/Road Toe Pit Design Limit Pit Resource Area



SCALE (ft):



Date: December 19, 2001

Filename: tn2_mineplan_1.dwg

Figure
1-2

NOTES:

Pit outlines based upon most current drilling information and economics, and are updated periodically.

TRUE NORTH PROJECT
Permitted and Amended Footprint